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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,501	12/27/2006	Alun Cole	1010-00100	6780
TUMEY, L.L.P. P.O. Box 22188 Houston, TX 77227-2188			EXAMINER FAYYAZ, NASHMIYA SAQIB	
			ART UNIT 2856	PAPER NUMBER
			MAIL DATE 05/10/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/577,501

**Applicant(s)**

COLE, ALUN

**Examiner**

Nashmiya S. Fayyaz

**Art Unit**

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3-8, and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engel-US Patent # 2,911,291. As to claim 1, Engel discloses a filtering and processing apparatus including an elongate cylinder (rotative hollow shaft 13) which inherently rotates about its longitudinal axis, vanes 67 extending away from the shaft and coated with impurities absorbing material such as charcoal 72, see fig. 1-4 and col. 2, lines 22 et seq. Further, it is noted that Engel does not refer to the apparatus as a "probe". However, it is noted that "probe" is merely found in the preamble and the body of the claim lacks any

"language referring back to or drawing life from the preamble designation of the probe. Therefore, the designation of a probe is not being afforded the effect of a distinguishing limitation and it would have been obvious to one of ordinary skill in the art at the time of the invention to have named the apparatus as a probe since it extracts analytes from a sample. Further, Engel does not specifically designate that the cylinder is arranged "to move longitudinally". However, since it is indicated that the hollow shaft "is mounted on bearings 26 and 25' to base 11 and cover 13", it would appear that some degree of longitudinal movement would be required for this mounting i.e. the assembly would require longitudinal movement into the cylinder 12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have indicated that the hollow shaft 13 is arranged to move longitudinally into the cylinder 12 in order to assemble the unit by inserting the shaft 13 into the cylinder via longitudinal movement which would then "enable the cylinder to be immersed in the sample" i.e. inlet gases E. As to claim 3, since liquid is supplied through 92, it appears the area of contact is maximized. Note no distinguishing apparatus feature defines how the area is maximized. As to claim 4, the filter 66 can be the extracting element and the rotative hollow shaft is arranged to be rotated in the sample. As to claim 5, note fig.2 where the vanes appear as impellers. As to claim 6, it appears there is a turbine 30. As to claim 7, note figs. 1 and 2 depicting the vanes as blades. As to claim 8, the vanes are coated with

charcoal, note col. 3, lines 32-41. As to claim 10, note the perforations 95. As to claim 11, cylinders 12 or 20 can be a sheath. As to claim 12, note the rotation causes movement relative to the sheath and somewhat elevation along with decent. As to claim 12, note charcoal 74 surrounding the shaft 13. As to claim 14, note heating elements 33. As to claim 15, note housing (cylinder 12) with inlet 28 and outlet 24. As to claim 16, note figs 1 and 2 which appear to form a spiral thread. As to claim 17, Engel employs charcoal and substitution with any other impurities absorbent of known absorbents is considered to have been a matter of design choice obvious to one of ordinary skill in the art at the time of invention based on the sample being collected. As to claim 18, filter element 48 can be considered a sparger since they diffuse with metal wires. Usage of glass frit is a well-known alternative filter element to the usage of metal wires. As to claim 19, this appears to be an intended usage without defining a limitation for accomplishing this intended usage. As to claim 20, note the vane shape.

#### ***Response to Arguments***

4. Applicant's arguments filed 3/18/10 have been fully considered but they are not persuasive. Applicant has argued that in Engel, the probe is not arranged to move longitudinally to enable the cylinder to be immersed in the sample. Such an argument is not found persuasive because since the hollow shaft is mounted in the cylinder, there has to be longitudinal movement and when the shaft is in the cylinder, it is enabled to be immersed in the sample.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Tuesdays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. S. F./

Art Unit: 2856

Examiner, Art Unit 2856

/Hezron Williams/

Supervisory Patent Examiner, Art Unit 2856